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The University of Southern Mississippi

DIVE INTO THE PIT: MOSHING AND ITS EFFECTS ON PERCEIVED STRESS,
SENSE OF BELONGING, & SELF-ESTEEM IN COLLEGE UNDERGRADUATES

by

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A Thesis

Submitted to the Honors College of
The University of Southern Mississippi
in Partial Fulfillment
of the Requirements for the Degree of
Bachelor of Science
in the Department of Human Performance and Recreation

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ABSTRACT

Moshing has been underrepresented in the research field. This is especially true in the area of Therapeutic Recreation. Moshing has been seen as a dangerous and violent form of dance. However, in a controlled environment moshing has the potential to be used as a therapeutic modality.

This study examined the effects of moshing on perceived stress, sense of belonging, and self esteem in undergraduate college students at the University of Southern Mississippi. Data was collected during a five-week moshing dance session through the use of three assessments/surveys, which included the Perceived Stress Scale (PSS), Rosenberg Self-Esteem Scale (RSES), and the Psychological Sense of School Membership Scale (PSSMS).

The researcher had no predictions of what the results may conclude. It was unknown whether or not moshing would have a positive or negative effect on perceived stress, sense of belonging, and self-esteem. The results suggested that moshing was slightly effective in reducing perceived stress. However, subjects' self-esteem and sense of belonging significantly decreased during the study. Based upon the results of the study, moshing has the potential to be used in a therapeutic recreation program.

KEY TERMS:

Moshing

Dance Therapy

Therapeutic Recreation

Perceived Stress

Sense of Belonging

Self-Esteem

Quality of Life

Perceived Stress Scale

Rosenburg Self Esteem Scale

Psychological Sense of School Membership

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CHAPTER I

INTRODUCTION

BACKGROUND & NEED FOR STUDY

College students experience stress, lower sense of belonging, and lower self-esteem (Shore, n.d.; Jones, 2009; University of Florida Counseling & Wellness Center, n.d.). However, few Therapeutic Recreation programs have focused on improving these areas of the college student's life. The focus of these programs has been towards the improvement of individuals with a physical or cognitive disability (springs.gov. Web; wisegeek.com. Web; nctra.org. Web), while other issues related to college students' well being have generally fallen into the areas of sociology and psychology.

Entering college freshmen are often ill prepared to adjust to the demands of college life. Freshman year is a telling time, where students continue to learn how to prioritize their time, set goals and select a professional course of study that will be a major part of their lives for many years. Additionally, college freshman are learning how to cope with being away from home, where the family was one of the most important structures. This may be the first time a student is away from his or her parents for an extended period of time. Learning how to deal with this change is a major struggle for college freshmen.

Another major battle freshmen experience is professor/student interaction. Unlike high school, some courses in college are set in an auditorium with over one hundred students. This set-up creates a lack of communication and connection between the

student and professor. A majority of college freshmen are not accustomed to this type of interaction. In high school, classes may have averaged a total of 20 students. With this number, the communication and connection between student and teacher is much greater. Teachers are more likely to assist each student in the way they would like to. The lack of connection between the two parties can lead to the student feeling unimportant to the class structure.

Lastly, college students are constantly surrounded by other students, whether in the dorms or in the classroom. They are continuously in contact with other students on campus as well. However, each individual's socialization varies. Adjusting from being around roughly 400 people a day to being around 1,000 people or more can be daunting. It can be a sensory overload. Exposure to that large amount of students does not insure that each student will be able to connect with others. Some students may be introverted and resort to social isolation. This suggests there is a need for these types of students to feel comfortable connecting with a smaller group. These demands, though not insurmountable, may potentially lead to social and emotional problems that could have a negative effect on academic success.

With all of these difficult challenges, it should be expected that college students become stressed. College students who are experiencing a high level of stress may have a difficult time feeling like they are part of a group or the university. This combination of stress and low sense of belonging may ultimately lead to low self-esteem. It becomes a concern if one, or a combination of these problems, has a negative effect on a student's academic success.

Universities are designed to assist with the above-mentioned challenges. The University of Southern Mississippi offers several student support services (usm.edu/student-life/get-help, Web). A few of the University's services include: CARES (Campus Action Referral and Evaluation Systems), Counseling Center, Office of Disability Accommodations, Student Health Services, and Student Support Services. These resources are examples of services available to assist students. The question is, "How many students utilize them?" Upon observations, some students are afraid to seek help or support, especially from their own university.

In addition to the student services the University of Southern Mississippi offers, there are also proactive resources each student can utilize. One resource this writer has seen used on a constant basis is recreational sports. Clubs on campus can create their own recreational sports team and compete in tournaments. Students are also allowed to join teams without being affiliated with a club. Recreational sports are meant to be an outlet where students can continue to play a sport they enjoy without having to be concerned with the everyday stress an NCAA sport can have. Also, the University of Southern Mississippi offers a yearly program for incoming freshmen called GEWW (Golden Eagle Welcome Week). It is a way for incoming students to prepare for their upcoming collegiate career in an informal and enjoyable way. These are a few examples of how a university offers proactive resources for an incoming freshman student.

Help services do not have to be limited to the traditional models because recent literature has concluded that various forms of dance can aid in the reduction of anxiety and depression, improve quality of life and reduce stress (Yale Medical Group, 2011, Bradt, Goodill & Dileo 2011, Kuhn 2010). Upon reviewing several universities'

websites, dancing as a form of student support is underrepresented, and in some cases not represented in that fashion (University of Southern Mississippi; University of Mississippi; Mississippi State University). Of the three universities reviewed, dance was only listed as a degree and not a student support service. Dance can be seen as having the potential to target a unique population within a university. If dance was given as a form of student service, there is the possibility of students utilizing it as a way to cope with the struggles of beginning college life.

One form of dance that could aid in the reduction of stress and improve sense of belonging and self-esteem is moshing. Literature suggests that this form of dance was conceptualized in the early to mid-1980s. (Irvine, 1996). This seemingly violent form of dance attracts members of the Hardcore sub-culture. The Hardcore sub-culture can be defined as being “more than music-this is a social movement, created from the children, inadaptable to the society, from the ear of the President Reagan.” (Fashion-lifestyle.bg. Web). The source continues, “The members of the hardcore subculture organize themselves in a some kind of tribe-some of them want to raise voice, the others search the salvation in the hard music, the third part search the better world, the fourth part are just angry to the world around them” [sic]. According to an interview with a member of the hardcore subculture on the website, the member stated, “Being in this scene, it taught me to be who I am today. I gave my life to hardcore. Instead of being the average drone worker, and going to college, I decided to do something different with my life. I believe it is a teen way of letting feelings out, a so called therapy.” When asked by the researcher what moshing means, one member of the Hardcore subculture stated, “Moshing to me is a way of self-expression in that you’re able to take all your anger and release it in the

form of an aggressive step or move. Every time I dance I let loose all my built up frustration and feel a ton better after the show” (T. Foster, personal communication, December 9, 2011). Moshing can be seemingly violent in nature; however, in a modified, controlled setting moshing is relatively safe.

DANCE & DANCE THERAPY

Dance has been a unique characteristic of cultures. Dance has served spiritual, ritual, therapeutic and recreational purposes. Dance is an outlet for individuals to express themselves, relieve stress, open up, and improve their overall well-being and physical fitness. Dance in various forms has shown to be an effective “intervention” for reducing stress and improving the self-esteem and sense of belonging of young adults.

Dance Therapy has been used worldwide as an effective form of therapy. Dance Therapy uses movement to improve mental and physical well-being. It is a recognized form of complementary therapy used in hospitals and comprehensive clinical cancer centers (Yale Medical Group, 2011). According to research by the Yale Medical Group (2011), several clinical reports suggest that dance therapy helps people accomplish the following: A) develop positive body image, B) improve self-concept and self-esteem, C) reduce stress, anxiety, and depression, D) decrease isolation, chronic pain, and body tension, E) increase communication skills, and F) encourage a sense of well-being. Dance Therapy can help individuals stay physically fit and enjoy the pleasure of creating rhythmic motion with their bodies (Yale Medical Group, 2011).

In dance therapy, there are no set forms of dance used. Instead, there are various dancing motions that are implemented. These may include line dancing, ballroom dancing, salsa, swing, and many others.

Past studies have shown that dance can help reduce anxiety, enhance mood, and build self-esteem (CIHS, Cudjoe; Web). Individuals participating in dance therapy have opportunities to explore themselves through improvisation and by establishing bonds with the other participants. Dance has also been known to increase overall health more than just exercise alone.

When asking a college student what type of dancing is popular, the answer may be dirty dancing or hip hop dancing. This is not the famous *Dirty Dancing* kind of dancing the older generation recognizes. The new generation's view of dirty dancing is more risqué and provocative. Dirty dancing is mostly done to hip-hop or rap music. There is constant contact between the two partners with the bodies grinding against one another.

However, the type of dancing that is enjoyed by college students depends on the group of people asked. With the hardcore/metal sub-culture of college students, hardcore/moshing will be most desired; while with the more mainstream group, club/dirty dancing will be desired. It all depends on who is asked. The type of dancing that will be used in this study is moshing. Moshing is a type of dance familiar with the hardcore/metal sub-culture of college students.

MOSHING

A recent form of dance, Moshing has been performed at numerous music events and concerts. The date by which this form of dance was originated has varied in the present literature. Moshing can be a form of individualized, musical interpretation. In this sense, moshing is an outlet for individuals to express how they experience the music through dancing. In Mosh Pits, "energy is given out by the bands that is felt and built up

by the fans and that produces a Mosh Pit.” Tsitsos (1999) defines moshing as a form of dance in which participants violently hurl their bodies at one another in a dance area called a “pit.” The author continues that the media has focused primarily on this form of dance as being violent in nature. This form of dance can be violent and get out of hand if the participants are not familiar with the form of dance, or if their primary goal is to harm others. Injuries in a denser pit are mostly inevitable due to the closeness of the individuals participating in the form of dance. In a controlled and professional setting, injuries and violence can be avoided. There has been a significant amount of research done on how moshing is viewed as a dangerous activity. Marneros’ (2009) study on injuries during a concert weekend concluded that a majority of the injuries that occurred were caused by moshing. Though dance can effectively reduce stress and increase self-esteem and a sense of belonging, and is a fun and preferred recreation activity for college students, very little is known regarding the popularity of moshing with college students, and the effect of moshing on stress, self-esteem, and a sense of belonging. Currently, there has been no scientific study of the benefits of implementing a moshing dance course to help college students improve their perceived stress, sense of belonging, or self-esteem

The purpose of this paper is to assess the effect of students’ participation in a short moshing program on their levels of stress, self-esteem, and sense of belonging. To accomplish this task, the author will first review the role of dance in the lives of college students, discuss the benefits of dance on social/emotional characteristics, and define the terms relative to this study. Next the author will define and describe moshing as a form of dance, and present a review of the literature regarding moshing and dance. Finally the author will present the methods and results of a short research exercise that looks at the

effect of moshing on stress, self-esteem, and a sense of belonging, and discuss the implications of these findings on better preparing college students to meet the demands of college life.

Research Question

What effects will a Mosh Dance Course have on perceived stress, sense of belonging and self-esteem in college undergrads?

SPECIFIC RESEARCH OBJECTIVES

Specific research objectives include:

1. To determine whether college students experience a higher self-esteem as a result of the moshing dance course.
2. To determine whether college students experience reduced levels of stress as a result of the moshing dance course.
3. To determine whether college students experience a higher level of sense of belonging as a result of the moshing dance course.
4. To further the knowledge of facilitating a moshing course towards the overall well being of college students.

A review of the research reveals that college students often struggle with three social/emotional variables:

STRESS

The first variable that will be defined is stress. Stress has been a difficult term to define, as it is disputed amongst different professions. Lazarus and Folkman's (1984) definition of stress says that stress is "a particular relationship between the person and the

environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being.”

SENSE OF BELONGING

The next variable defined is sense of belonging. Hagerty, et. al (1992) defines sense of belonging as the experience of personal involvement in a system or environment so that the persons feel themselves to be an integral part of that system or environment. Maslow (1943) rated ‘belonging’ third on his hierarchy of basic human needs. The goal, rather than hopes of the proposed study is that participants will feel more connected to the university as well as other students by taking part in the moshing dance course.

SELF-ESTEEM

The final variable examined will be self-esteem. There have been many studies aimed at measuring one’s self-esteem. Self-Esteem is the fourth level of Maslow’s Hierarchy of Needs. Maslow (1943) stated, “All people in our society (with a few pathological exceptions) have a need or desire for stable, firmly based, (usually) high evaluation of themselves, for self-respect, or self-esteem, and for the esteem of others.” Maslow also says “Satisfaction of the self-esteem need leads to feelings of self-confidence, worth, strength, capability and adequacy of being useful and necessary in the world. Thwarting of these needs produces feelings of inferiority, of weakness and of helplessness.” During college, students are thrown into a world where self-confidence and inferiority are only one click away. One moment they can be on top of the world and have a 4.0 G.P.A, and the next moment they can see their G.P.A. fall substantially by one mistake. This constant reminder of the need to be successful can result in a student feeling that he or she is inferior to the other students who are able to manage college well.

Sense of belonging and perceived stress can be considered as precursors to achieving a high level of self-esteem. When an individual is able to cope with stress in an effective way, his or her perceived stress goes down. Also, the ability to deal with daily situations improves. The same can be said about sense of belonging. After these two areas are met, the individual can achieve a high level of self-esteem. These studies suggest that by addressing the effect of stress on college students, as well as assisting students in improving self-esteem and strengthening a sense of belonging may lead to a healthier, happier, and more successful student.

CHAPTER II

LITERATURE REVIEW

The purpose of this study is to measure the effects of moshing on perceived stress, sense of belonging and self-esteem in college undergrads. Research on the effectiveness of moshing as a form of Dance Therapy has been limited. As a result, literature on the benefits of exercise, in general, will be examined, various forms of dance used as therapy will be discussed, the variables sense of belonging and self-esteem will be introduced, and a review of the literature on moshing will be provided.

EXERCISE

It has been shown through numerous studies that exercise can be used towards the improvement of both physical and psychological aspects of an individual. In Searle, et. al's (2011) study of the perceptions of patients regarding exercise, the researchers concluded that most of the patients perceived physical activity to be an acceptable treatment for depression. The patients in Searle, et. al.'s study perceived that physical

activity provided a source of distraction from negative thoughts, leading to reduced feelings of depression.

Faul, et. al.'s, 2011, study of cancer patients beginning chemotherapy concluded that higher rates of exercise activity were associated with lower levels of anxiety and depression, and better overall mental and physical quality of life. Also focusing on the benefits of exercise with cancer patients, Blacklock, Rhodes, Blanchard and Gaul (2010) concluded that acute exercise at light and moderate intensity decreases anxiety for both breast cancer survivors and those without a diagnosis.

Not only are the benefits of exercise displayed in the treatment of individuals with an illness, but they can also be found in the treatment of individuals without an inherent illness. In the prevention and treatment of anxiety and depression, exercise interventions are associated with significant benefits for patients with mild to moderate forms of depression as well as reducing anxiety. Exercise may also serve as an alternative or a supplement to traditional forms of therapy (Martinsen 2008).

Guszkowska (2004) stated that the benefits of exercise are significant especially in subjects with an elevated level of anxiety and depression because of more room for possible change. The researcher's study also stated that the most improvements in anxiety and depression are caused by rhythmic, aerobic exercises, using large muscle groups of moderate and low intensity. Exercise may also increase body temperature and blood circulation in the brain, impact on hypothalamic-pituitary-adrenal axis, and ignite a physiological reactivity to stress.

Exercise can also be used as a way to increase a sense of belonging in individuals. Midtgaard, Rorth, Stelter & Adamsen (2006) studied group cohesion and changes in

Quality of Life in 55 cancer patients undergoing chemotherapy. The researchers implemented a 6-week group exercise program to assess the changes in the patients' group cohesion and Quality of Life. The researchers stated, "The programme made purposeful togetherness possible while allowing the patients an opportunity to let their illness fade into the background."

DANCE THERAPY

A number of dances have been used to increase the overall well-being of individuals. The preponderance of the literature focuses on improving the overall well-being of elderly persons or individuals with an illness. There is a gap in the literature when it comes to the scientific study of dance being used with young adults and college students.

The most commonly used forms of dance used in the literature were ballroom dancing, aerobic dance, and other various forms of aerobic exercises. Bradt, Goodill, and Dileo's (2011) study of implementing a dance/movement therapy course for improving psychological and physical outcomes in cancer patients concluded that the course had a large beneficial effect on participants' quality of life. However, the study did not find support for an effect of dance/movement therapy on mood, distress, and mental health. This study was one of the select few in which there was not an effect of dance/movement therapy on mood, distress, and mental health.

Kuhn (2010) implemented a dance therapy workshop for elderly people living in a home. The study concluded that the dance therapy implemented improved the cognitive functioning, psychological well-being, and quality of life of elderly persons. As one can

see, there is a major gap in the literature concerning the implementation of a dance therapy course with young adults and college students without a serious illness.

MOSHING

Moshing has been around for decades. Moshing is a form of dance that takes place during a hardcore, punk or metal music show. The date of the origin of moshing has varied in the current literature. Most of the literature states that it was first conceptualized in the early to mid-1980s. The origins of moshing come from the early hardcore punk scene, and a band named Bad Brains was credited with coining the term (Helium, 2007). Moshing is also referenced as ‘Hardcore Dancing.’ Hardcore Dancing is a form of mosh (or slam dancing); an activity performed in a mosh pit at hardcore music shows.

“Moshing is a closely related form of dancing characterized by its aggressive nature. The movements consist of violent contact with other dancers, swinging the arms and legs, and jumping in a staccato fashion to the beat of the music.” (Unityhxc, Online). Generally the dancing is done to certain visceral parts of hardcore songs specifically written to make the audience move around (LyricsVault, Online). Names for this part of the song are called “breakdowns.” This is the part of the song where the music builds up, and the audience can feel that a ‘heavy’ (slow or fast paced part of the song) beat is about to play. Once the ‘breakdown’ occurs audience members begin to dance.

These various dance moves include ‘two-stepping’, ‘windmilling’, ‘picking up the change’, ‘horse kicking’, ‘front kicking’, and ‘spin kicking’ (Unityhxc & WikiHow, Online). The ‘two-step’ dance move consists of the individual picking one leg up and swinging it in front of the other, while the opposite leg is being moved backwards.

Then the dancer would alternate between each leg to continue two-stepping.

‘Windmilling’ consists of the dancer rotating the arm in a 360-degree rotation either forwards or backwards. Each arm can be rotated individually or simultaneously.

‘Picking-Up-The-Change’ consists of the individual bending the knees slightly and then moving one hand towards the ground while the other remains at knee level. Once one hand has touched the ground, the other comes down and completes the same move. Once the hand has touched the ground, it may be tucked behind the back while the opposite hand is touching the ground. ‘Horsekicking’ consists of the dancer placing his or her arms in front of the body, and then simultaneously pushing forward while one leg kicks back. The same move will be completed with the opposite side of the body. ‘Front-Kicking’ consists of the dancer simply kicking with one foot in front of his or her body. Then the same move will be completed with the opposite side of the body. ‘Spin-Kicking’ consists of the individual completing a 360-degree rotation while simultaneously kicking one leg. Various other moves can be found through interviewing individuals in the various Hardcore music scenes. The variations of moves differ between one Hardcore scene to the next. Individuals also create their own moves, in an attempt to stand out and be different from the group.

There has been a gap in literature when it comes to the benefits of moshing.

There is a substantial quantity of academic literature that primarily focuses on the risks and dangers associated with moshing. Janchar, Samaddar, & Milzman’s (2000) article on moshing directs attention towards the risks of moshing. The article focused on an event that lasted four days and reported a high percentage of moshing related medical incidents. An article by Marneros (2009) likewise pointed to moshing as a new cause of injury in

the 90s. The study concluded that moshing resorted in injury of the extremities, head and spinal injuries. Conversely, there has been no research done on the benefits of moshing.

CHAPTER III

METHODS

This study measured the effectiveness of a Moshing Dance/Movement Therapy intervention course on perceived stress, sense of belonging, and self-esteem in college undergrads. These variables were measured using the Perceived Stress Scale (PSS), Psychological Sense of School Membership, and the Rosenberg Self-Esteem Scale. For purposes of the study, each variable was defined as the score achieved on the respective scale by each participant.

PARTICIPANTS AND KEY VARIABLES

The population represented in the study consisted of undergraduate students at the University of Southern Mississippi, Hattiesburg Campus. Participants included students with a diverse range of majors. Recruitment of participants was not limited to a specific race, sex, gender, sexual orientation or religious affiliation. The participants were contacted via E-Mail, flyers and visits to various club meetings. The number of undergraduate students represented in the proposed study depended on the number of participants who responded to the various invitations. The desired number of participants for this study was 25; however, only 7 consistently attended and participated in the study.

The variables tested were perceived stress, sense of belonging and self-esteem. Stress was defined as any negative emotions, feelings or bodily pains the participant experiences at the time of the study. Lazarus and Folkman (1984) define stress as “a

particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being.” Sense of belonging was defined in the sense of belonging and membership the participants feel with the University of Southern Mississippi. As stated previously, in Chapter 1, Hagerty, et. al (1992) defines sense of belonging as the experience of personal involvement in a system or environment so that the persons feel themselves to be an integral part of that system or environment. [sic]. Self-esteem was viewed as the result of stress and sense of belonging. Higher self-esteem should occur if an individual experiences lower levels of stress and feels as if he or she belongs. Maslow (1943) noted, “Satisfaction of the self-esteem need leads to feelings of self-confidence, worth, strength, capability and adequacy of being useful and necessary in the world. But thwarting of these needs produces feelings of inferiority, of weakness and of helplessness.” These three variables were tested using the three scales mentioned above.

PROCEDURE

The proposed study was completed in the Fall 2012 semester in the Human Performance and Recreation building at the University of Southern Mississippi. The course was completed over a five-week period with one meeting per week lasting one hour. Prior to the course, the Perceived Stress Scale, Psychological Sense of School Membership and Rosenberg Self-Esteem Scale were administered to each participant to establish baseline levels for each variable. Two separate measuring points were administered throughout the study to measure Mid Evaluation scores and Final Evaluation scores. Data was analyzed following the conclusion of the dance course and continued throughout the Spring 2013 semester.

SPECIFIC REQUIREMENTS

Specific instruments were needed to increase the efficacy of the study. These included the Perceived Stress Scale, Psychological Sense of School Membership, and the Rosenberg Self-Esteem Scale.

- **PERCEIVED STRESS SCALE**

The Perceived Stress Scale (PSS) is the most widely used psychological instrument for measuring the perception of stress (Cohen, n.d.). It is a measure of the degree to which situations in one's life are appraised as stressful. The items were designed to tap how unpredictable, uncontrollable, and overloaded respondents find their lives. The scale also includes a number of direct queries about current levels of experienced stress. The questions in the PSS ask about feelings and thoughts during the last month (Cohen, 1983). The Perceived Stress Scale-10 Item Scale is scored by obtaining the 10 items and reversing the scores on the four positive items, e.g., 0=4, 1=3, 2=2, etc. and then summing across all 10 items. Items 4, 5, 7, and 8 are the positively stated items. Scores can range from 0 to 40, with higher scores indicating greater stress. The Perceived Stress Scale is available online for free, and can be used by any researcher.

- **ROSENBURG SELF-ESTEEM SCALE**

The Rosenberg Self-Esteem Scale is perhaps the most widely used self-esteem measure in social science research (University of Maryland, Online). The ten items measure the level of self-esteem the participant has. The Rosenberg Self-Esteem Scale is scored by assigning a value to each of the 10 items as follows: 1) For items 1, 2, 4, 6, 7: Strongly Agree=3, Agree=2, Disagree=1, and Strongly Disagree=0. 2) For items 3, 5, 8, 9, 10: Strongly Agree=0, Agree=1, Disagree=2, and Strongly Disagree=3. The scale

ranges from 0-30, with 30 indicating the highest score possible. The Rosenberg Self-Esteem Scale is a free scale available online; the scale can be used by any researcher. The scale was adapted to meet the needs of the study. Changes include modifying the numeric value of each item to a score of 1-4, with the highest score possible being 40. Strongly agree was modified to a numeric value of 4, agree was given the numeric value of 3, disagree was given the numeric value of 2, and strongly disagree was given the numeric value of 1.

- **PSYCHOLOGICAL SENSE OF SCHOOL MEMBERSHIP SCALE**

The Psychological Sense of School Membership Scale was created by Goodenow (1993) to measure the "...extent to which students feel personally accepted, respected, included, and supported by others in the school environment" (p. 80). The Psychological Sense of School Membership Scale is an 18-item scale. The participants will read a series of statements and then indicate to what extent each statement applies to them on a five-point Likert scale ranging from 1 (not at all true) to 5 (completely true). Permission was granted by the author of the Psychological Sense of School Membership scale, Carol Goodenow, for the assessment to be used in the study.

APPROVALS

Various approvals were needed for this study. The Human Subjects Review was the most important approval needed for this study. Other approvals included: reserving the room in the Human Performance and Recreation Building and approving the type of music being used, as well as how loud the music can be. There were consent forms for the participants to complete. The consent forms included information and purpose of the study. Another consent form was given to the participants detailing the inherent risks of

participating in the type of dance. One other student currently attending the University of Southern Mississippi helped facilitate the course. This student followed a strict agenda. However, there were times where the structure of the course needed to be impromptu. This allowed for flexibility within the study.

DATA ANALYSIS

The mean scores of how the mosh dance course impacted perceived stress, sense of belonging and self-esteem were calculated. At the beginning of the course the three scales were administered and baseline data collected. The results of these scales are used as the baseline analysis. At the midway point of the course the three assessments were administered, data was collected and analyzed again. The results from these were then compared to the baseline results to analyze any changes in the three independent variables. Once the course was completed there was one final administration of the scales to see if there had been any changes from the midway results, and then they were compared to the baseline results

STATISTICAL ANALYSIS

Statistical Analysis: Descriptive statistics for all responses are provided in Table 1, 2, and 3. Mean differences were evaluated through the employment of paired samples t-test with significance set at $p \leq .05$. Responses were compared using the following paradigm: Pre compared to mid, pre compared to post, mid compared to post.

POTENTIAL OBSTACLES

Potential obstacles are inevitable in any form of research. This study had obstacles characteristic of any other study. Some students did lose interest in the program and decided to drop out. There was the possibility of the participants not

viewing the research as a serious matter. The assistant had the possibility of not taking his role as a facilitator seriously and in turn contribute to the participants not taking interest in the study. The data collected from the study had the potential to be skewed due to the participants not taking the research seriously. The major obstacle present was the proposed length of the study. The study was a very time consuming activity for the students. Much dedication was required to complete the moshing dance course. Students' schedules were in mind when the course time was determined. The proposed start time for the research was 8:30 P.M, however it was moved up to 7:30 P.M.

CHAPTER IV

RESULTS

For each of the variables measured, the researcher conducted a pre-(baseline) assessment, a mid-term assessment and a post assessment. For each of the three variables on each assessment, the researcher determined a mean score and standard deviation. Finally, a t-test was conducted for each variable to determine the significance of the change. The results of the data analysis are below. Mean values are plotted in figures 1.1, 1.2, and 1.3.

PERCEIVED STRESS SCALE

For the PSS measure, the researcher found no statistically significant differences of mean responses between pre, mid and post assessments.

Table 1

Test: Perceived Stress Scale (PSS)	Mean Score	SD (Standard Deviation)
PSS Pre	23.28	3.03
PSS Mid	18.85	4.09
PSS Post	21.14	4.45

The PSS was measured on a scale from 1-4 on all ten items of the assessment. The lower the reported score, the lower amount of perceived stress each participant felt. The higher the number, the higher perceived stress each individual experienced. There was a 40 possible composite score for the assessment, with 20 being considered as an average score. The mean score for the PSS pre-assessment was 23.2857, and the standard deviation was 3.03942. The mean score for the PSS mid assessment was 18.8571, and the standard deviation was 4.09994. The mean score for the PSS post evaluation was 21.1429, and the standard deviation was 4.45079. Based upon a T-Test analysis there was no significance in the findings. The mean scores are shown in Figure 1.1.

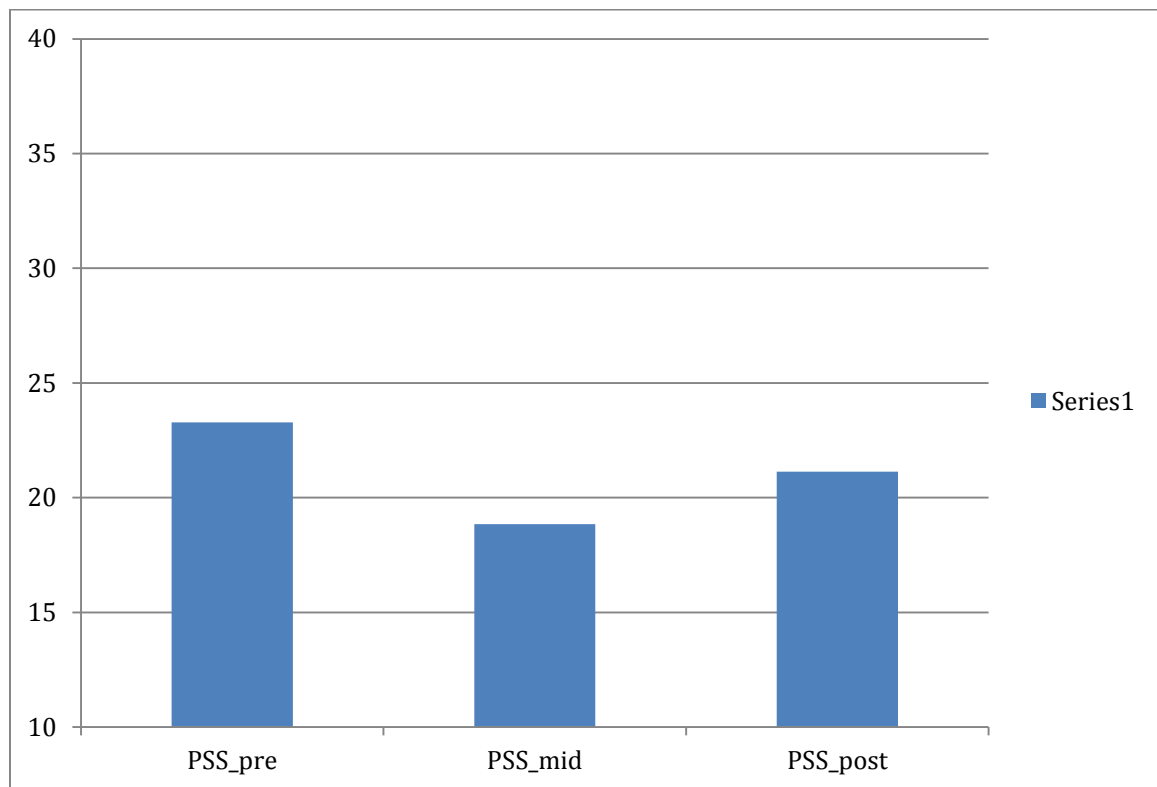


Fig. 1.1 Perceived Stress Scale Mean Scores

ROSENBURG'S SELF-ESTEEM SCALE

Also, no statistically significant differences were observed for responses to the RSES across assessment points.

Table 2

Test: Rosenberg's Self-Esteem Scale (RSES)	Mean Score	SD (Standard Deviation)
RSES Pre	27.8	1.78
RSES Mid	26.5	2.32
RSES Post	26.28	1.7

The RSES was measured on a scale from 1-4 on all ten items of the assessment. There was a composite score of 40 for the assessment, with 20 being considered as an average score. The higher the score, the higher reported feelings of having a high self-esteem. The mean score for the RSES pre-assessment was 27.8000, and the standard deviation was 1.78885. The mean score for the RSES mid-evaluation was 26.5000, and the standard deviation was 2.32993. The mean score for the RESES post-assessment was 26.2857, and the standard deviation was 1.70434. Based upon a T-Test analysis there was no significance found in the data. The mean scores for the Rosenberg's Self-Esteem Scale are shown in Figure 1.2

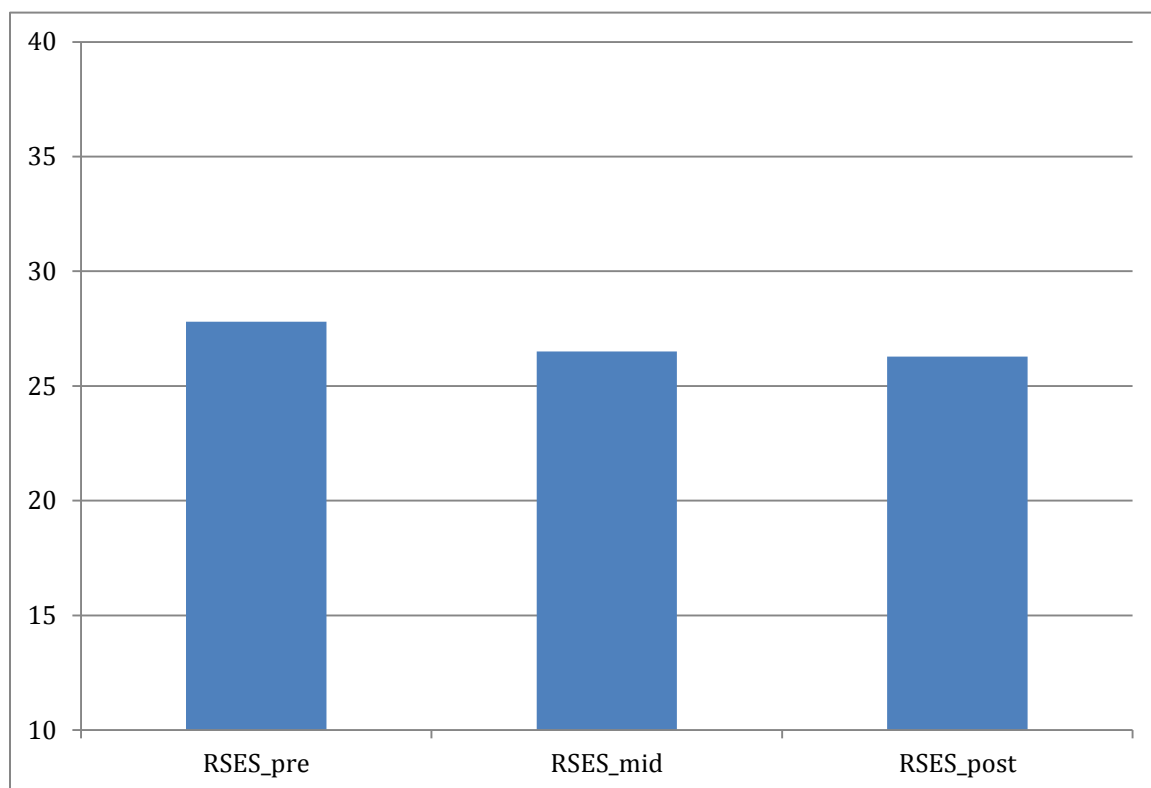


Fig. 1.2 Rosenberg's Self Esteem Scale Mean Scores

PSYCHOLOGICAL SENSE OF SCHOOL MEMBERSHIP SCALE

Finally, the researcher found no significant differences between mean responses to the PSSMS measure of sense of belonging.

Table 3

Test: Psychological Sense of School Membership Scale (PSSMS)	Mean Score	SD (Standard Deviation)
PSSMS Pre	50	5.47
PSSMS Mid	48.85	6.96
PSSMS Post	49.57	11.02

The PSSMS was measured on a scale of 0-5 on all 18 items on the assessment.

The composite score for the assessment was 90, with 45 being an average score. The

higher the score, the higher the sense of belonging. Conversely, the lower the score, the lower the sense of belonging each participant feels. The PSSMS pre-assessment mean score was 50.0000, and the standard deviation was 5.47723. The PSSMS mean mid-evaluation score was 48.8571, with the standard deviation being 6.96248. The PSSMS post-evaluation mean score was 49.5714, and the standard deviation was 11.02810. Based upon a T-Test analysis, there was no significance found in the data. The mean scores for the Psychological Sense of School Membership Scale are shown in Figure 1.3.

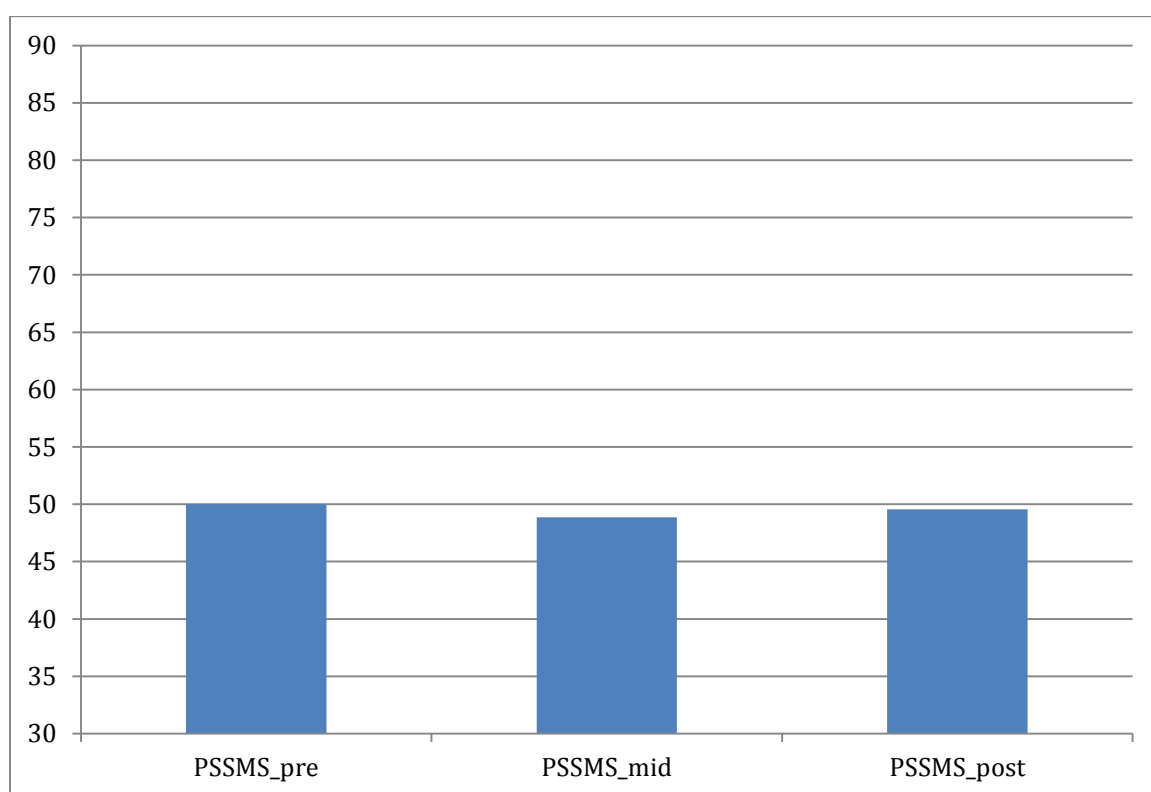


Fig. 1.3 Psychological Sense of School Membership Scale Mean Scores

CHAPTER V

DISCUSSION

This study examined the effects of participation in a class on moshing on perceived stress, sense of belonging and self-esteem. The results of the study showed

that a) there was a slight visible improvement in perceived stress, b) the improvements in perceived stress were not considered to be a significant improvement, and c) there was an unexpected and slight visible decrease in self-esteem and sense of belonging. Plausible explanations of the findings and future considerations are discussed below.

There were many variables that could have affected these findings. One of these possibilities could have included how comfortable each participant was dancing in front of a group of people. Dancing in public, even around people an individual knows, can be difficult and uncomfortable. Dancing around people one knows can make the activity even that much more uncomfortable. This may have had the most impact on individuals' self-esteem.

Also, the researcher observed that the female participants were more uncomfortable dancing than the male participants. When the sessions would start, the female college undergraduates would observe the others dancing first and then join in if the other females were dancing. On several occasions the female participants would have to be encouraged first to participate in the sessions. The male participants would dance individually even if there were no other males dancing. This suggests that the gender of the participant could have influenced the level of participation.

Additionally, a majority of the participants were learning a new form of dance. Moshing is a form of dance that can be difficult to participate in. The various dance moves vary in difficulty and could have been too involved for some of the participants. With the level of difficulty high, this had the potential to raise the perceived stress in the research subjects.

Sense of belonging also did not show a slight visible statistical significance to suggest that it increased or decreased during the study. One flaw of the study was that a majority of the participants who volunteered for the study were already familiar with each other. With the research subjects already being familiar with one another, there was a decreased chance that their sense of belonging would increase. Their levels of sense of belonging may be already high. It is quite possible that a group of participants that are not currently involved in school activities may have shown an increase in sense of belonging.

Additionally, this study was measuring the effectiveness of moshing, alone, in increasing sense of belonging. As mentioned earlier in this thesis, the Hardcore community were suggested to be tightly knit and have a sense of family. Moshing is only a piece of the hardcore community, and other aspects of this group of individuals contribute to the feeling of being part of a family. The participants in the study were only introduced to one aspect of the hardcore community. Had the participants been integrated into the hardcore community and actively participated in moshing at a concert the results may have changed. The setting for this type of dance was controlled and unnatural to the normal circumstances in which it takes place.

The females in the study tended to socialize more with the other female participants than with the male subjects. The researcher did not influence this type of socialization, but nothing was done to force the participants to communicate with one another. Socialization was encouraged to be spontaneous and natural. Also, some members of the study were more social than others. Some would communicate with everyone, while others would only socialize with one other person or stay to themselves.

The results on self-esteem showed a surprising decrease as result of participation in the study. Perceived stress and sense of belonging did not improve very much, so it can be predicted that self-esteem would not improve as well. These two variables can be seen as precursors to establishing self-esteem. Upon review, moshing cannot affect self-esteem as a means by itself. Solely participating in this form of dance does not mean that self-esteem will improve.

A visible review of the data indicated that self-esteem dropped during this study. Perceived stress also visibly decreased and sense of belonging did not increase significantly. This raises a level of concern when examining the intervention. With perceived stress and sense of belonging not increasing significantly, it would suggest that self-esteem would not either. However, with this variable declining over the study, emphasis needs to be placed on future research.

Future considerations and suggestions will now be discussed. Moshing is a difficult type of dance to study and teach. There are countless numbers of moves and the list continues to grow. At shows, people are continuously innovating new ideas on how to interpret the style of music. Also, moshing is a form of dance that is better learned by integrating oneself into the hardcore community and learning through attending shows and observing others. A single individual teaching moshing in a classroom style is not the most educational setting. Moshing is unlike other forms of dance such as line dancing, hip-hop, tango, or ballroom dancing. It is aggressive and requires the individual dancing to be innovative and unafraid of the consequences that moshing may have.

Moshing in an actual mosh pit is completely different than dancing in a classroom. This study was controlled and in a safe environment. If the participants of

this study were to go into the mosh pit at a hardcore music concert believing they were not going to be hit by someone, then serious injuries could occur. This occurrence would greatly increase their perceived stress. The participant would be uncomfortable in moshing in that type of circumstance again.

More importantly, the length of the study may have had an impact. This intervention only lasted for five weeks. Some change is expected, but there is a limited time frame in which it can occur. Had the study been longer, more sessions could have been completed and there could have been more time for significant change to happen. This finding may be consistent with the frustration noted by many Recreational Therapists. The current trend in medical rehabilitation is cutting down the length of stay a client is eligible for. According to the Centers for Disease Control and Prevention, the average length of stay in a non-Federal short-stay hospital is 4.9 days (CDC, Web). The alarming concern is how short the length of stay actually is. There is a limited amount of time for one to make any progress in his or her rehabilitation. The same can be said about this study. Some change did occur, but the full potential of the intervention was not utilized. Results were required immediately and allowed limited time for the participants to interpret the intervention and comprehend the changes taking place. If a conclusion can be made, it could be argued that the shortened stay in rehabilitation could possibly have a negative effect on patients' potential for improvement.

Additionally, the amount of participation in the study was minimal. Seven participants consistently participated in the research sessions. As mentioned before, all but one participant was familiar with the others. The University of Southern Mississippi is compiled of 14,096 undergraduates (Taylor. B, 2010). This study only scraped the

surface of the undergraduate student population with seven participants. Future research on moshing as an intervention should consist of a higher sample population.

This study accomplished its goals. Even though the results did not show a significant difference, the study brought insight into how moshing could have the potential for future research and consideration as a recreational therapy activity. Upon reviewing the literature in Chapter III, one can conclude that there has been no study like this one. Though imperfect, this study branched out of the norm and journeyed into the unknown. It was the first of its kind, and hopefully not the last.

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